DEVELOPMENT STUDIES RESEARCH GROUP

Working Papers

MV GANDAR * and N BROMBERGER

Subsistence production and household budgets in Mahlabatini District, KwaZulu, 1981

DSRG Working Paper No. 11

University of Natal
Pietermaritzburg
Department of Economics

DEVELOPMENT STUDIES RESEARCH GROUP

UNIVERSITY OF NATAL

PIETERMARITZBURG

MV GANDAR * and N BROMBERGER

Subsistence production and household budgets in Mahlabatini District, KwaZulu, 1981

DSRG Working Paper No. 11

* MV GANDAR
Institute of Natural Resources
University of Natal
PO Box 375
PIETERMARITZBURG
3200

April 1984

CONTENTS PAGE

SUMMARY

The study was conducted in a part of the Mahlabatini District of KwaZulu. The population density of permanent rural residents in this subsistence agricultural area was 48 people/km with resident households of eight people on average. A sample of 111 such households was studied.

Three quarters of adult men lived away from home usually as migrant workers in towns and cities. Those with some schooling were particularly likely to leave. The rural population depend on remittances for more than half their cash income with a further quarter coming from pensions. Only 4,5% came from sales of agricultural produce. Cash income was only R77 per household per month while average monthly expenditure was R86 per month, the difference being made up by net incurring of debt and net reduction in savings.

On average, households consumed their own agricultural produce to the value of R32 per month. By far the main item was milk. The value of the milk by far exceeded the value of cattle slaughtered or sold.

The distributions of income and agricultural production are skewed and the majority of households earn/own/produce less than the means. Some are exceedingly poor.

The results of the survey give rise to several suggestions for the design of a community development project in the area. They also underscore the urgency of somehow overcoming the problem of overgrazing which, if continued, will destroy the major subsistence component of income in areas such as this.

The income findings make possible comparisons with income surveys carried out in the Ciskei, Transkei and urban townships around Durban, and with an adjusted 'poverty measure' estimated for a rural area in KwaZulu.

ACKNOWLEDGEMENTS

We are grateful to the following: S Mashinini and H Mvelase for help in conducting interviews; the Agency for Industrial Mission for financial assistance and the loan of a vehicle for fieldwork; the Institute of Natural Resources, in particular J Hancock and B Wagner, for help in the compilation of the report; L Inggs for the diagrams.

INTRODUCTION

The main objective of the survey was to collect information which would be useful in planning a community development project. The Thwsana Co-operative Farm Project (TCFP) was set up as a community development project in 1979 on Goodluck Farm which is in Natal on the border of the Mahlabatini District of KwaZulu.

This study focuses on the social and economic conditions of Black people living within the area in which the TCFP might be expected to have some influence. We assumed arbitrarily that the influence of the project in terms of job creation, markets for produce etc. might extend 10 km . Accordingly a circular study area of radius 10 km centred on the TCFP was chosen. Of the 314 km^2 of this circle 170 km^2 was in KwaZulu and most of the survey was concentrated there (FIGURE 1). It is hoped that such information will be useful in making planning decisions about the precise nature and scope of the activities which will come to constitute the Project.

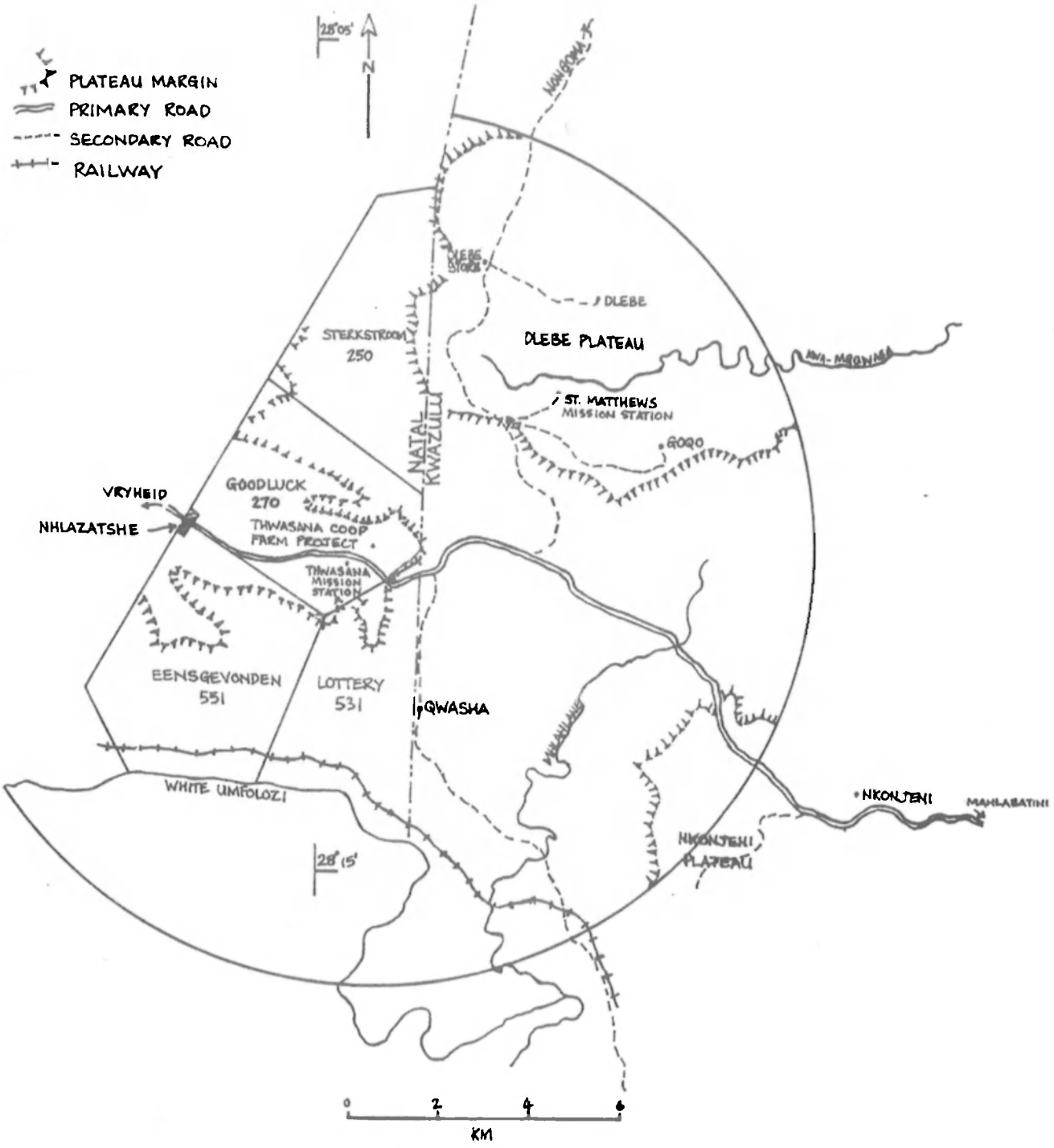
Fieldwork commenced on 31 March 1981 and was completed in 2 - 3 weeks. Some re-interviewing was carried out in late April and early May.

Sampling was based on a random cluster system using up-to-date (1980) aerial photographs. Numbered grid points on the map were selected at random and located on the ground. The nearest eight households to each selected point were chosen. Complications occurred when it was not possible to locate a member of a particular household or when there were fewer than eight households in the community, but such problems were infrequent and it is doubtful whether they introduced any bias. A household was defined as a distinct group of huts. It may contain a number of sub-groups such as the families of adult sons of the head of the household.

There were a total of 111 satisfactorily completed forms in KwaZulu. In addition 22 households living on White owned farms in Natal were interviewed. Because many of the White farmers were obstructive it was not possible to follow a systematic sampling system. This report covers only the KwaZulu component of the sample. The farm labourer part of the survey is described in an unpublished report (Gandar, 1982a)

The vegetation of the area is predominantly grassland consisting of both Northern Tall Grassland and Highland Sourveld. The southern part of the study area near the White Umfolozi River contains bushveld which is probably transitional between Lowveld and Zululand Thornveld. This also occurs on some hillsides. All these types are described by Acocks (1975). Altitude varies

STUDY AREA : MAHLABATINI DISTRICT



The study area is located in the Mahlabatini District of KwaZulu, Area No.2. The survey which forms the basis of this paper was conducted in the 170 km² that fell both within a 10 km radius of the Thwasana Co-operative Farm Project and within KwaZulu. This area, which lies between 28°05' and 28°20'S and 31°25' and 31°15'E, is inhabited by about 8000 people.

from about 600 m to 1 100 m and rainfall from 700 mm to 900 mm per annum. The study area includes the Dlebe and Nkonjeni plateaux (900 m) which have fairly high agricultural potential.

CHAPTER ONE

DEMOGRAPHICS

(1) Population density

The KwaZulu portion of the study area consists of 170 km² containing 5 498 huts. From our survey, we have found that the occupancy rate for huts is about 1,49 persons per hut. The total number of inhabitants of the area, therefore, is approximately 8 192 people. The population density is 48 per km². This high density is typical of rural areas in KwaZulu. The population density of rural areas of Natal, not including KwaZulu, is approximately 21 people per km (Erskine, 1982).

(2) Household structure

In the study group of 111 households, the average number of huts per household is 5,35. Households typically consisted of several huts arranged in an irregular pattern or in a semi-circle around a kraal for livesotck. A few large households of up to 30 people consisted of a number of subunits based either on different wives of the head of the household or on different married sons. These large households had a single kraal and a single fence around them so were treated as units in this survey.

The households that made up the study group yielded a total population of 1 163 including absentees. This is an average of nearly 10,5 people per household. Twenty-three percent of this population, however, was not in residence in the study area, reducing the average to 8,07 members in residence per household. Household size ranged from 1 to 31, but nearly half had between 6 and 10 members in residence.

TABLE 1 Average number of people per household in survey area

	Resident (77 %)	Non-resident (23 %)	Total
Men	0,63	1,65	2,28
Women	2,37	0,34	2,71
Children	5,07	0,41	5,48
Total	8,07	2,40	10,47

The 111 households averaged 2,4 non-resident individuals per household. A

few had more members away than in residence, and only 12 reported all members living at home.

Of the 267 people not in residence, over two-thirds are men. These men generally employed in urban areas, comprise a large majority of the total number of men, from the 111 households. There were more children away, presumably at school, than there were women away. There were 38 women away.

Of the residental population 63 % were children (TABLE I). Although enquiries into the specific ages of individuals were not made, 'children' TABLE 1, refers generally to persons under the age of 14. This high percentage reflects both the absence of adults, especially males who are away working, and the explosive rate of population growth in rural KwaZulu. Among adults, women outnumber men by more than 3,5 to 1. Over half of the households had no adult males at home. Only 7,8 % of the residential population are males over the age of 14. A significant proportion of those are elderly or disabled.

The age and sex imbalances evident in these figures illustrate the dimensions of the social distortion in rural KwaZulu produced by the exodus of workers to distant employment centres. This selective migration results in a high dependency burden in KwaZulu (the number of persons between the ages of 0 and 14 per adult male between the ages of 15 and 64) which is a severe constraint on development. Our figures for dependency in the survey group (residents and migrants) are comparable to figures for KwaZulu as a whole, which is 2,7, while the dependency burden for the white population of South Africa, by contrast, is only 0,9 (Thorrington-Smith, Rosenberg and McCrystal, 1977). However, if only resident household members in the survey are considered, the dependency burden appears to be of the order of eight. The shortage of available manpower to support a growing population is a major obstacle to rural development.

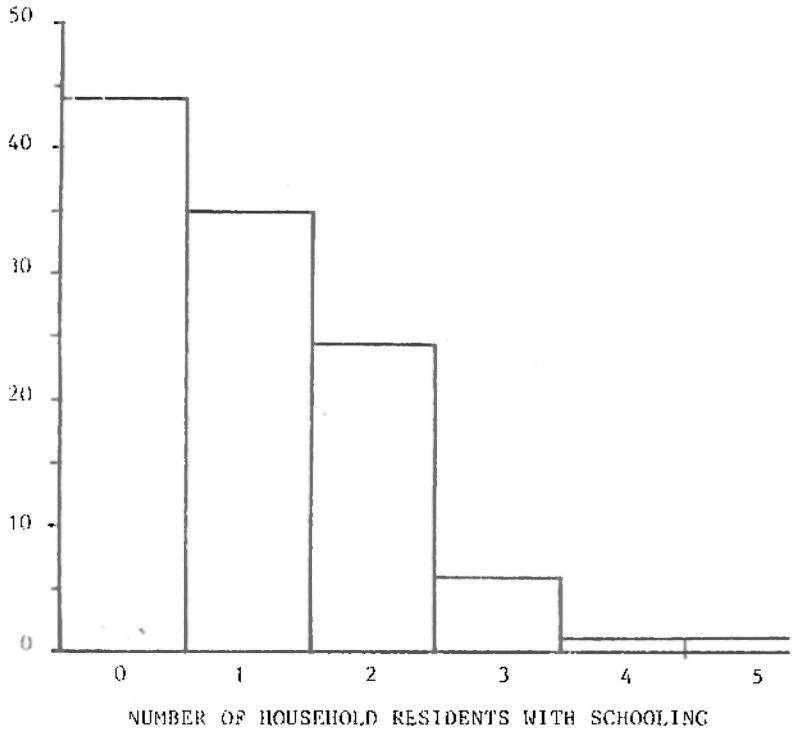
(3) Education and training

Of the total 554 adults (both at home and away) 209 or 39 % were educated, where 'educated' means some schooling, no matter how little. A majority of these people did not reach secondary school and only one person graduated from university. Slightly more women than men were educated.

A third of the adults living in the rural area had received some education, although 80 % of these did not go as far as secondary school. One household reported five educated adults in residence, but 44 of the 111 households reported having no residing educated adult (FIGURE 2). Of the resident adults who are educated 88 % are women.

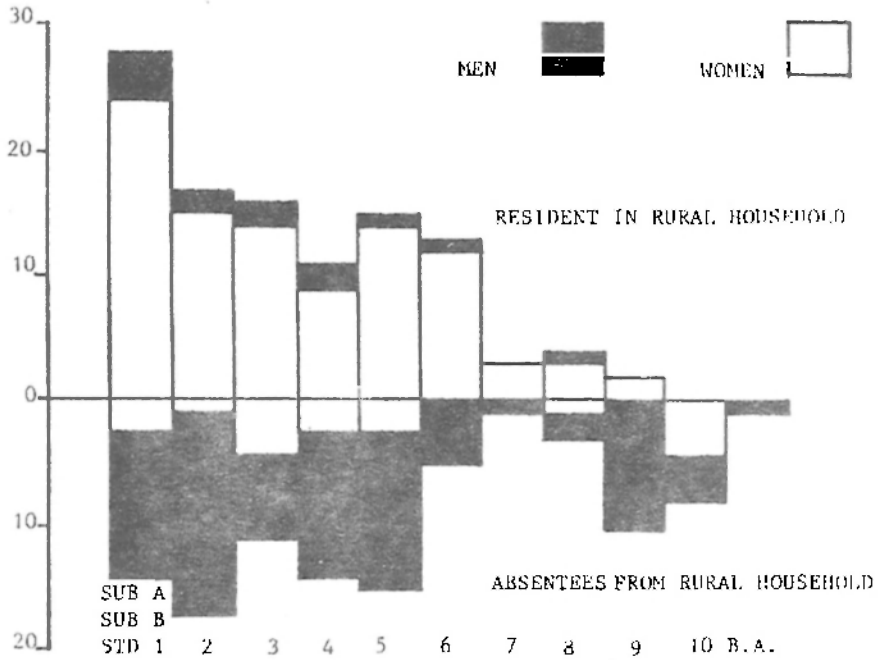
Levels of education have a positive correlation with rates of absenteeism,

FIGURE 2.



The number of adults who live at home and who have been to school varies from 0 to 5 persons per household. In over 40% of households there is no adult with any schooling.

FIGURE 3.



Education is a strong influence on absenteeism of men but has little or no effect on migrancy among women. 90% of the residents who have some schooling are women. In the entire resident population of the sample not one person had completed school.

with 48 % of educated adults away compared to 40 % of the overall adult population. The tendency for educated people to leave the rural area increases with education levels, such that 91 % of all those who reached standard nine or better are absent.

This 'brain drain' is largely a male phenomenon: of the educated men 39 % live away from home, 86 % of educated women reside in the survey area, and 92 % of men with at least some secondary schooling live away from home. But education seems to have almost no effect on rates of female absenteeism (FIGURE 3).

Training other than school is very rare among the rural residents. Only five of the resident adults had training: two teachers, a policeman, a nurse and a doctor (whether western or traditional was not ascertained). We have no data on trained absentees. Rural residents were also asked about skills which had been acquired, and the results are shown in Table 16. Relatively few people claimed skills which could, by themselves, provide a reliable income.

CHAPTER TWO

AGRICULTURE

(1) Access to, and use of, agricultural land

In the strict sense this is not a landless population, nor is there any substantial class of landless members of the population. Of course, by standards prevailing in technically-advanced White-owned agriculture, holdings are negligible (though we do not have measures of field-size). But it is worth emphasizing that in contrast to many areas in the homelands, this part of Mahlabatini District - as reflected in our sample - is able to provide arable land for nearly all families resident there. In what follows, we quantify this statement and say something about the use and non-use of land.

Only three of the 111 households reported that they had no fields. However in another survey which extended to other parts of the District, Gandar (in prep.) found that 11 % of households had no fields. Most households that had fields had more than one. The mean number per household was 2,77 (standard error 0,15) and the maximum number was eight. A few said that some of the fields they used were not strictly theirs but were borrowed on a fairly permanent basis. An interesting feature was the number of fields which were not cultivated that year, 16 % of the total number of fields. In fact 27 % of the households reported that some or all of their fields were not cultivated. Reasons advanced for this by informants revealed that this was not a deliberate policy of resting or fallowing the soil although one person said that the soil was so poor and yields so low that cultivation was not worth trying. The most commonly voiced complaint (41 %) was the problem of draught power, which covered both the shortage of oxen and particularly the shortage of money for tractor hire. Another serious problem is the unavailability of seed and fertilizer and/or shortage of money to buy it (26 %). Drought was mentioned by 40 % of the respondents, often in combination with other constraints. Other reasons included illness, death of the head of the family and absence at ploughing time. Altogether 12 of the 111 households in the sample did not cultivate at all (including the three landless households).

In addition, 41 households (37 %) have gardens, either household plots or plots in community gardens or both. Twenty-seven households (24 %) participated in community gardens. The plots were cultivated mainly for vegetables, but household plots often included maize.

(2) Livestock holdings

Eighty-one percent of households owned at least one head of cattle, the

largest holding being 53 (TABLE 2). The mean holding was 8,35 (standard error 0,91). The distribution of ownership is illustrated in FIGURE 4a Seventy-one percent owned 10 head or less.

There were far fewer households with holdings of small stock. Fifty percent owned small stock. In bushveld, these were nearly all goats but in the grassland, both sheep and goats were found. The stocking density for the whole study area is 2,01 ha per head of cattle or 1,83 ha per 'cattle equivalent' if it is assumed that six small stock units is equivalent to one head of cattle, an approximation based on the figures of Meissner (1982). This is a slightly greater stocking density than the average of 2,32 ha per head for the whole of KwaZulu and of 2,15 ha per head for the Mahlabatini District (unpublished figures derived by the KwaZulu Development Corporation from official statistics).

TABLE 2 Animals: ownership by households in April 1981, and slaughter and sale during previous 12 months: subsample of 65 households

	Households owning animals	No. of animals owned	No. of animals slaughtered	No. of animals sold
Cattle	51	545	24	2[1]
Sheep	20	183	35	
Goats	15	83	25	
Pigs	10	12	4	1
Chickens	54	537	672	109
Other poultry[2]	12	42	6	
Value			R8 534	R614

Notes: (1) One of these animals was given to a herder in payment and therefore was not 'sold' in the strict sense

(2) Mostly ducks

(3) In calculating the money value of the slaughtered animals it was assumed that they were all mature animals. Only live animals were sold and many were young (especially chicks)

There is a correlation between the number of cattle and the number of small stock owned by each household but the correlation is weak ($p<0,05$). There are significantly greater than average chances that owners of 20 head of cattle or more own at least some small stock, and that households

with no cattle also have no small stock. Between these extremes there is very little correlation between cattle and small stock.

Only eight households in the sample owned a horse or donkey. Eighteen households owned at least one pig but none owned more than two. The ownership of such animals did not correlate with wealth or other agricultural holdings.

(3) Definition and measurement of agricultural production

Sixty-five households were questioned in depth about the crops they had produced in the previous season (1979/1980) and their egg and milk production in the last 12 months. This had been a year of severe drought and 83 % described it as a 'bad' year.

The subsample was not chosen randomly from the whole sample because the original intention had been to revisit all households but the agricultural section of the questionnaire was far more time consuming than we had anticipated. The subsample contained a higher proportion of households in the grassland area which are generally of higher agricultural potential than the lowlands. If the results have a bias as a consequence, it would be a slight overesimate of agricultural production. This would not affect the main finding which we present below that agricultural production is very low.

For simplicity, the term 'production' was restricted to mean harvested crops plus milk and eggs. This is gross production and includes the small proportion which may be used agriculturally as animal feed or seed for the following season's crop. It is not easy to quantify this and it is probably small compared to the errors inherent in this type of survey.

To determine animal production would necessitate a study far beyond the scope of this survey with data on growth rates, breeding rates, population dynamics and the multiple role of animals in subsistence agriculture. Therefore the only turnover of animals recorded was sales and slaughterings. This is not production in the strict sense if the sales merely reflect a reduction in herd size. Conversely an expanding herd cannot be called unproductive simply because none were sold or slaughtered. The drought had caused stock losses (Gandar, 1982b), and an outbreak of Newcastle disease had severely reduced poultry stocks so most households experienced negative animal production. Drought-induced mortality was not always a total loss since meat and skins were sometimes retrieved from the dead animals.

(4) Crop production

Crops fell into four basic classes: cereals, beans, cucurbits and other vegetables.

Initially people underestimated production, often claiming that everything was lost in the drought when in fact they had a small harvest. They also often forgot minor crops. Once this had been sorted out they tended to overestimate production by rounding fractions upwards e.g. one bag and a bit becomes two bags. We suspect that errors will more often than not be overestimates. The results are summarised in TABLE 3.

4.1 Cereals

Maize - Maize meal is the staple diet and maize is the largest single item of crop production. It may be eaten as grain, milled to porridge or fermented into a thick and nutritious beer. Average maize production was 4,5 bags per household although only one quarter of the households produced more than the mean. An average household requires at least one bag per month plus seed for planting in the following year. Ninety-two percent of the households did not produce this minimum requirement. Thirty-five percent obtained nothing or negligible amounts (one bag or less) which scarcely covered the investment in seed.

Sorghum - Thirteen of the 65 households produced sorghum. The households which produced no maize also produced no sorghum. The total crop was 13 bags. Not much sorghum is planted. This is surprising, since it is more drought-tolerant than maize. Moreover both the porridge and the beer produced from it are preferred to those from maize. A bag of sorghum will sell locally for four times as much as a bag of maize.

4.2 Bean crops

Three types of bean crop are grown locally under dryland conditions. They are a convenient non-perishable crop which can be stored dry. Compared to cereals they are quick growing so can be a valuable second option in the event of failure of early rains. Double cropping is possible in good years. Thirty-seven percent of households obtained at least some bean crop although sometimes only a basin or two. (A 'basin' is a crude estimate of small amounts of production. It refers to the enamel basins commonly used for washing. One basin could mean anything from about two to ten kilograms. This measure is used for some other types of produce below as well.)

Beans - 17,8 bags were produced by 18 households
Juga beans (Izindlubu) - 4,8 bags were produced by 11 households
Cowpeas (Izindumba) - 5,8 bags were produced by 8 households

The approximate local value of a bag of beans is R80, of juga beans R55 and of cowpeas R40.

TABLE 3 Value of all agricultural production (meat excluded) in one year by produce type.

This is the total for the subsample of 65 households

(Values calculated at estimated local market prices)

		Value (R)	No. of producer-households
Cereals:	Maize	4 358	54
	Sorghum	783	13
	TOTAL	5 141	54
Bean crop:	Beans	1 424	18
	Juga beans	261	11
	Cowpeas	232	8
	TOTAL	1 917	24
Cucurbits:	Pumpkins	1 508	25
	Melons	116	13
	TOTAL	1 624	32
Vegetables:	Beetroot	5	2
	Cabbage	773	13
	Carrots	11	4
	Onions	25	5
	Potatoes	273	5
	Spinach	82	7
	Sweet Potatoes	10	1
	Tomatoes	256	8
	TOTAL	1 435	15
Others:	Peaches	2	1
	Groundnuts	35	1
	TOTAL	37	2
All crops total		10 154	54
Eggs		398	20
Milk		10 727	45
All production total		21 279	63

4.3 Cucurbits

These are drought tolerant and require relatively little attention. They are sometimes planted between rows of maize. They have fairly long storage lives compared to most vegetables.

Pumpkins - 1 889 bags were produced by 25 households. The largest-producing household used most of its surplus as cattle feed, but generally most is for human consumption.

Melons - 29 bags were produced by 13 households. Melons are generally cooked and eaten as a vegetable. They are occasionally used as pig feed.

4.4 Other Vegetables

Twenty-one households cultivate a vegetable plot. It may be a homestead garden which is generally not watered or a plot in a community garden. The latter are normally situated near a spring or a stream and may be watered by hand or channel. Nine households have homestead gardens, 10 have plots in community gardens and two households have one of each.

The main vegetables are cabbage, spinach, tomatoes and potatoes. Vegetables are readily saleable locally.

Beetroot - 3 basins produced by 2 households

Cabbage - 138 bags produced by 12 households, 3 of which produced 91 % . The production claimed by at least two of these families is almost certainly optimistic. A bag is equivalent to about 16 cabbages.

Carrots - 7,5 basins produced by 4 households

Onions - 10 basins produced by 5 households

Potatoes - 91 pockets (12,5 kg each) were produced by 5 households, 2 of which produced 86 % .

Spinach - 510 bundles were produced by 7 households. A bundle consists of about 20 leaves and sells locally for 10 to 20 cents.

Sweet potatoes - only one producer obtained one bag. This plant grows well and both the tubers and the leaves are highly favoured foods, so the neglect of this crop is surprising.

Tomatoes - 73 boxes and/or basins were produced by 8 households of which 2 produced 82 % .

4.5 Other crops

Peaches - one basin from a single tree

Groundnuts - one bag of unshelled nuts from a single producer

4.6 Summary

The value equivalent of total crop production at rough local market prices was R10 154 and the mean was R156 per household (standard deviation : R30).

Maize comprised 43 % of the value equivalent of crop production. Households producing no maize failed to produce other crops while only six of the 54 maize producers failed to produce other crops. Six households produced crops worth more than R500 while one (R1 303) exceeded R1 000. The late head of this last household, who had died the previous year, was an agriculturalist. Even this top figure is low. If their expenses of about R100 are deducted and allowance made for depreciation (they own a tractor), seed for replanting etc. the net value equivalent is less than R100 per month from seven fields plus a garden. This is more land than most housholds are able to use, the sample mean being three fields per household.

The fact that this household and a few others stand out indicates that actual crop production is far below the potential. One of these households which obtained over 30 bags of maize attributed the yield to the fact that they used cattle manure on their fields.

The grim situation is that the value equivalent of mean gross crop production is a mere R13 per household per month and that 74 % of households were unable to achieve even this and 17 % produced no crops at all.

(5) Egg and milk production

This part of production was very difficult to estimate. Eggs are not collected regularly and production varies seasonally and sporadically (e.g. with the outbreak of Newcastle disease). In estimating milk production, too, allowances must be made for seasonal changes in lactation, lower yields on days when animals are dipped, and differences at calving time. People have little concept of measurements of volume and will show a container which they claim is filled every day. Close questioning almost invariably revealed this to be an overestimate. We believe that the milk production reported below is an overestimate but it is not possible to guess by how much.

5.1 Eggs

Chickens are kept for eating rather than for egg production. Although at the time of the survey 54 households had one or more chickens, only 20 had used any eggs in the previous year. A number of households purchased eggs to eat from the local store, leaving the eggs produced by their own chickens for breeding. Sometimes a rudimentary shelter was constructed for the chickens but there were no proper chicken runs. Many people complained that losses of eggs and chicks to dogs, birds etc. was high.

Disease and theft of chickens was a problem, so egg production was very inefficient in terms of wasted potential. However, eggs did provide a much needed protein at virtually no cost in time or money.

Total production was approximately 7 955 eggs which are worth about 5 cents each locally. This is 120 eggs per household per year averaged over the whole sample.

5.2 Milk

Total production was about 35 755 litres for the whole sample. The mean annual production per household was 550 litres (standard error : 85). However, only 45 households, or 69 % actually produced milk. Fifty-eight percent of all households produced less than the mean.

From TABLE 3 the importance of milk in the local agricultural economy is aparent. If valued at a local price of 30 cents per litre, it surpasses the value of egg and crop production combined. Milk production is not related to crop production. A linear regression of milk production on crop production failed to show either a positive or negative correlation. Milk is extremely important for many households which produced little or no crops. For 31 households (or 48 % of the sample) milk contributed more than 50 % of the money equivalent of production. Of the households who said that the previous season was a 'bad' one agriculturally 52 % obtained more than half of their money value of production from milk. Of the remainder who described the season as average only 27 % obtained over half their production from milk. This indicates that milk is a vital resource particularly when the area is stricken by drought. Even allowing for possible exaggeration of milk production, these general remarks hold.

(6) Value of total agricultural production

The total value of crop, egg and milk production was R21 279, or R327 per household per annum (standard error : R44,50). Only two of the 65 households produced nothing. Fifty-eight percent produced less than the mean when only crops were considered (FIGURE 4b)

FIG 4a : DISTRIBUTION OF CATTLE OWNERSHIP

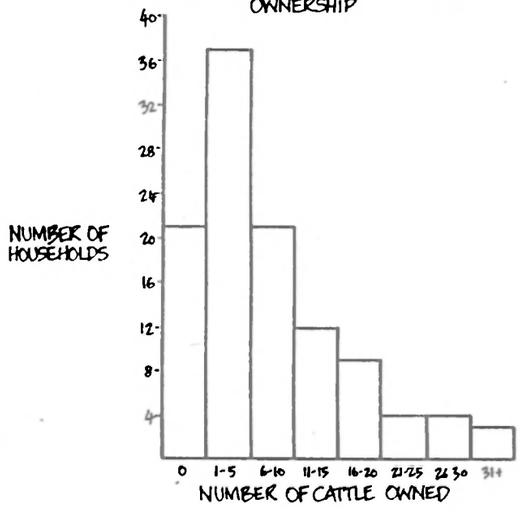
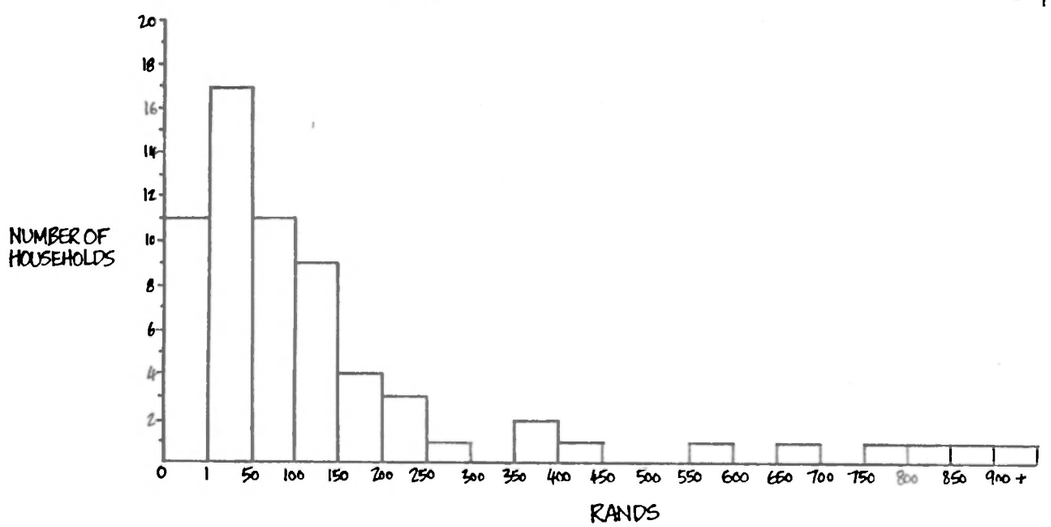


FIG 4b : DISTRIBUTION OF GROSS VALUE OF CROP PRODUCTION FOR YEAR 1980/81



The distributions of cattle ownership (A) and of gross crop value (B) have comparable skewness. Nearly a fifth of the households own no cattle and over half own five or less. Similarly, nearly a fifth produced no crops and over half produced less than a hundred rands worth for the year. However there were a few examples of crop production and cattle ownership which were over 10 times the median values.

(7) Turnover : Sales and gifts of agricultural produce

About 13 % of production changes hands in the community. Sales were all local sales from the home or direct from the community garden, except for one person who sold vegetables outside the store and post office at Dlebe. There was no barter but there were two instances of payment of vegetables in return for help in the garden. These are recorded as sales. The large discrepancy between reported giving and receiving of produce casts doubts on our data on non-monetary exchanges of produce (TABLE 4).

Twenty percent of maize production was sold by only four of the larger producers. These households did not keep enough for their needs and were compelled to buy refined maize meal from a shop before their next crop. This suggests that grain storage may present problems.

People do not seem to have difficulty selling produce locally at the moment. Even perishable vegetables are easily disposed of. However, it is surprising that no eggs or fresh milk are sold. One household sold sour milk (amasi). Some households bought powdered or condensed milk.

It is clear that nearly all produce is consumed by the households which produce it. What little turnover there is involves only a few households.

(8) Animals : Sales and slaughtering

TABLE 2 shows animals owned, slaughtered and sold. All sales were conducted within the local community. The most striking feature is that only one head of cattle (0,2 % of the combined herd) was actually sold, the other 'sale' being payment for work. This is despite the fact that it was a drought year and people should have been reducing their herds. Only 24 head of cattle were slaughtered, these generally being for occasions such as parties or weddings. Despite the dominant position of cattle in subsistence agriculture, they do not provide much meat or income. Meat is sometimes sold when an animal is slaughtered since it cannot be stored fresh and people in this area tend not to dry meat. Sales of meat and skins totalled R121 and R10 respectively. An equivalent of a further R40 and R4 respectively was given away.

Chickens are an important meat source. Fifty-seven households (88 %) slaughtered chickens. For 30 households (46 %) poultry was the only domestic meat eaten. Thirty-one households killed 10 chickens or more and 42 killed six or more, so many households ate at least a little meat regularly (if infrequently). The importance of chickens may have been even more evident had it not been for Newcastle disease. It is also noteworthy that sale of chickens brought in more money to more households than cattle.

TABLE 4 Local exchanges of agricultural produce: values of sales and gifts and numbers of households involved. These are total values of transactions in the subsample of 65 households in the course of a year.

	Sales		Gifts (given)		Gifts (received)	
	R	Households	R	Households	R	Households
Maize	884	4	33	3	15	5
Sorghum	10	1	3	1	3	1
Beans	330	3	20	1		
Juga beans			15	1		
Cowpeas	20	1				
Pumpkins	62	2	142	4	10	2
Melons			*	1	30	4
Beetroot			2	1		
Cabbage	338	7	14	2		
Carrots	5	1				
Onions	5	1				
Potatoes	223	3				
Spinach	31	3	5	3		
Tomatoes	165	3	4	1		
Groundnuts			2	1		
Milk/maas	180	1	333	2	1	1
Meat	121	3	40	7	56	11
Skins	10	4	4	1		
TOTAL	2 384		617		115	

Notes: (1) Interpret 'households' as number of households engaging in activity e.g. 4 households sold maize, 3 gave it away, 5 received gifts of maize

(2) * indicates less than 50 cents

(9) Profitability of agriculture

The agricultural expenses which were reported all related to crops and gardening. We asked about the buying of animals to build up stock as opposed to slaughter but none was reported. The question seemed to be misunderstood by some interviewees so it is possible that this aspect of agricultural expenses has been missed. Judging by the low sales, however, it must be small. Nor did anyone report any expenditure on animal feed, veterinary expenses etc.. Thus agricultural expenses must be compared to the value of crop production.

The agricultural expenses for the subsample of 65 is R45 per year per household which is slightly higher than the figure in Table 7 for the whole sample of 111. The latter figure is 3,6 % of the total expenditure. This low figure is understandable given the low return on this investment. In the subsample 78 % reported agricultural expenses and 31 % of these failed to produce crops to the value of the expenditure. The net earnings from arable agriculture (i.e. value of crop production - agricultural expenses) ranges from minus R147 to plus R1 213 with a mean of R135 per household per year. These arable profits, which include both home consumption and sales, work out to R1,40 per capita per month. We have not costed in labour, and the agricultural income is calculated on local prices, which are much higher than a farmer could obtain by marketing through normal commercial agricultural channels. There seems no possibility of a significant class of commercial farmers emerging spontaneously under the existing system.

CHAPTER THREE

INCOMES

(1) Incomes from all sources

This section is concerned with the question of what incomes in cash or kind from all sources were received by the resident members of the sample households during the survey month. Wage incomes received by household members living and working elsewhere are not treated as available to the resident members - except for that part of those incomes specifically sent back as remittances in cash or kind.

In summary form this investigation found that in March/April 1981 the average income in both cash and kind received by this sample of resident households was close to R114 per month. Since the average resident household size was 8,07, average per capita income was R14,18 per month or R170,20 per year.

It must be emphasized that these are constructed figures. Some of the income-components are based on receipts 'last month' reported by 111 households. Others relate to agricultural production and livestock slaughterings 'last year' by 65 households; they have been converted to monthly income contributions by averaging over a year and have been assumed to be relevant for the remaining 46 households in the sample.

There were further resources available to households in the study month as a result of money borrowing, drawing on savings, or receipt of gifts in kind from other households. These are ignored here despite their possible vital importance for the survival and welfare of the households concerned. The former two involve wealth or asset reduction and so do not represent accruals of income in a net sense. The third ought to net out for the community as a whole (and hence for a representative sample) but be reflected in production levels. We shall return to these matters (borrowing, dissaving, gifts) at a later stage.

(2) Components of total income classified as in cash or in kind:

For the average household in our sample, income was received from a number of sources which are listed in TABLE 5. In this presentation cash sources are distinguished from those in kind.

TABLE 5 Mean monthly household income (all sources), March/April 1981

Agricultural incomes are monthly averages for preceding year. Note that for agricultural earnings it is possible to give gross income and expenditure, but for home enterprise only net income (i.e. profit) can be given.

TOTAL GROSS INCOME		R117,49
In cash:		
Remittances in cash	45,05	
Pensions	18,14	
Local employment: wages	5,53	
Net income from home enterprises	4,90	
Gross agricultural sales	3,84	
	R77,46	
In goods:		
Remittances in kind	4,87	
Gross value agricultural production (excluding sales)	24,39	
Gross value livestock slaughterings	10,77	
	R 40,03	
Total gross income : cash and kind	R117,49	
EXPENSES INCURRED		R 3,06
Agricultural expenses	3,06	
TOTAL NET INCOME		R114,43

Two thirds of the estimated monthly income (66 %) is constituted by money payments of one kind or another - of which remittances in cash from family members working elsewhere is by far the most important item. The remainder of household income is received, or accrues, in the form of goods - either brought or sent back to migrants, or produced locally in crop or pastoral agriculture.

We have common sense grounds for thinking that agricultural costs are

somewhat understated, so that the overall net agricultural income may be less than indicated by TABLE 5. It is difficult, on our data, to decide how to allocate agricultural costs between the three agricultural income components to obtain net values for each. We have attempted to do this in compiling the information represented in FIGURE 5. However, since agricultural costs are relatively very small, the allocation will not have a significant effect on the diagram.

(3) Components of total income classified as deriving from internal or external sources:

An alternative representation of this information which stresses the distinction between income derived from sources external to the community and sources internal to the community is given in TABLE 6. All the subdivisions have been combined schematically in FIGURE 5.

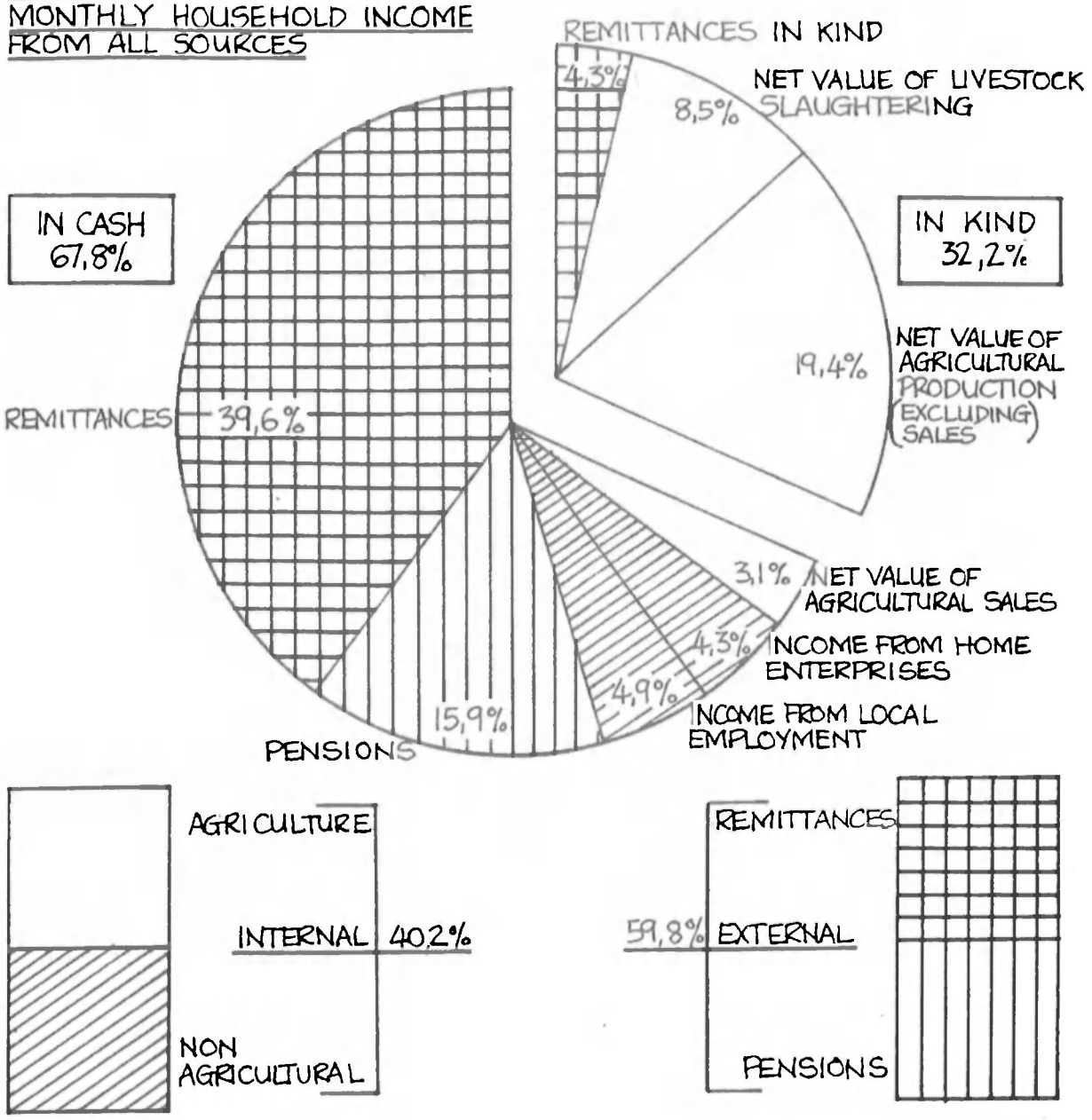
TABLE 6 Mean monthly household income (all sources), March/April 1981

(Agricultural incomes are monthly averages for preceding year)

External	
Remittances in cash	45,05
Remittances in kind	4,87
Pensions	18,14
	R68,06
Internal	
Gross value agricultural sales	3,84
Gross value agricultural production (excluding sales)	24,39
Gross value livestock slaughterings	10,77
Local employment: wages	5,53
Income from home enterprises	4,90
	R49,43
Total external and internal	R117,49

Almost 60 % of income is derived from activities and/or sources which are based elsewhere. In this most fundamental of senses the communities

FIG 5
MONTHLY HOUSEHOLD INCOME FROM ALL SOURCES



The chart shows the breakdown of monthly income of an average household into various components. There are major divisions into income in cash (left) and in goods (right), and into income from external sources (lines) and from internal sources (dots). The community is dependent on outside sources for 82% of its cash. Agriculture provides negligible amounts of cash on average, but nearly a third of all income (cash and goods).

represented in the sample are economically dependent on external capital, enterprise, production and welfare payments. Even some of what is listed as 'local employment' is technically-speaking 'external' - involving employment at Thwasana Mission or by KwaZulu Administration as a primary school teacher.

(4) Components of total income classified as agricultural or non-agricultural

Another possibly interesting distinction is that between income from agricultural sources and from non-agricultural sources. Carrying out this classification shows just over 30 % of income as derived from agriculture - with animal production (milk, meat) dominating crop production. While it is clear that these households are dependent on external, non-agricultural sources of income for survival, agriculture is not negligible - at 30 % of income. Moreover, of course, we are talking here of mean household incomes - and there is a distribution about the mean. Closer examination of this distribution reveals that over 20 % of the 65 households (14/65) for which we have good agricultural data received more than half of their incomes from agricultural sources. It is also fairly clear that those households with low cash receipts from remittances etc. depend more heavily on agriculture. (A more precise discussion, with some statistical evidence, is presented in CHAPTER FIVE).

(5) Non-agricultural Income

5.1 Remittances

In the 111 households of the survey, there was a total of 207 workers away. Of these 117 (56,52 %) remitted cash in the month prior to the questionnaire. Thirty of the households received no remittance in the surveyed month. The remittances totalled R5 001. This implies that the remittance was R42,74 per remitter - or R22,03 per worker away (remitting or not).

In addition to the 117 cash remittances in the surveyed month, 16 households received goods with a total value of R541,37, or R33,83 per worker remitting goods. This averages to R4,87 worth of goods per household. Fourteen households received both goods and cash.

For logistical reasons, the survey covered only one month and we are left with no alternative but to assume that month to be typical of the period. We assume then that every month about 117 of the 207 workers remit an average sum of R43, although specific households may not necessarily receive regular amounts. In answer to a question on the reliability of remittances many respondents said that they could not rely on regular payments, but the question seems to have been misunderstood on many occasions. Some said that although they did not receive regular payments, their relatives could be relied upon to send money when it was needed.

In fact, the assumption that the month of the survey is typical of all months is probably not completely valid and remitttances exhibit seasonal variation. In December, for example, larger than normal remittances could be expected as migrants return home for Christmas. Lesser peaks could be expected in January with the need to pay school fees, April when migrants return for Easter, and possibly October when some families hire tractors.

The Easter weekend occurred towards the end of the study period so in the last few questionnaires remittances, especially in kind, may have been higher than normal while earlier ones may have been lower than normal.

The sample included two abnormally large payments from relatives: one of R500 for a cattle purchase, the other of R200 for lobola, contribute to unusually high remittance figures for the month. While such transfers of funds into the community may not be rare, they are possibly uncommon enough to bias the data for the particular month in which they occur.

5.2 Pensions

After remittances, pensions are the most important source of money income for the community, accounting for about 16 % of its receipts in the surveyed month. Sixty-three pensioners in 51 households received pensions. These are paid by the KwaZulu Administration and were usually R60 or R66 every two months. A few interviewees complained that the amount was variable and that they were sometimes underpaid.

The average income per household from pension payments was R18,14 per month. Among the 46 % of the households that received pensions, the average income from that source was R39,48. These meagre pensions are vital to the survival of some households.

5.3 Local employment

Local employment and home enterprises, while important sources of additional income were minor when compared to remittances and pensions. The income from local employment and home enterprises is about a sixth of that from remittances and pensions.

Only 2,45 % of the home population, or 22 people, were employed locally. Of these, 13 had permanent jobs and 9 were seasonally employed. These workers constitute only 9,6 % of the community's total workforce of 229 people. A large proportion of the permanent workers were employed as domestic workers at the nearby mission. One person worked at a butchery. Seasonal workers generally performed manual labour related to drought relief programmes or the building and maintaining of dams.

The average monthly wage for permanent workers was R42,18. For seasonal

workers it was R30,00. On the other hand, seasonality was not allowed for in making annual income estimates.

5.4 Home enterprises

Twenty-seven households, nearly a quarter of the total, were involved in some form of profitable enterprise at home. (In many cases businesses were literally conducted 'at home', but the sample included a store-keeper.) The net income from nine of these operations was impossible to determine and the figures below are derived from the remaining 18 households. The contribution of their home enterprises to the community's total income in the month of the survey was slightly over 4 % .

The net income ranged from R200,00 in the case of one bricklayer to a slight loss. The average income from this source last month was R4,89 per household, or R20,13 per household that actually engaged in home enterprise.

Nearly one third of those involved in home enterprise were involved in some form of commercial activity in the buying-and-selling sense. These people did not produce goods or services, but bought and then resold items for a profit. The people bought clothes in Durban or elsewhere and resold them locally, and traded in animal skins, and one bought pigs which were slaughtered and sold. One person owned a 'tea room' and two others sold bottled drinks. The second largest class of home enterprise consisted of six people who sewed for profit, either producing or repairing clothes. Four people, including the skilled bricklayer, were involved in building. An equal number worked with grass, either producing plaited grass mats or selling thatching grass. Two traditional doctors made steady incomes through their trade. Finally, there were individuals who baked bread and sold religious water. Three households were engaged in more than one type of enterprise.

In examining the data on home enterprise, there is no evidence to indicate that in general, interviewees either aggressively pursued income opportunities or that they lacked interest in enterprise. Nevertheless, a few generalizations regarding attitudes towards enterprise are possible.

If the two exceptionally high remittances described above are discounted, it is apparent that households engaged in enterprise earned, on average, over 20 % less from pensions and remittances than the rest of the sample. Also, more than a fifth of the households engaged in enterprise received no income at all from pensions or remittances. These findings suggest that enterprise was viewed primarily as a way of supplementing or substituting for other income, so those most in need were more likely to pursue enterprise opportunities.

The conclusion is supported by evidence from the interviewees concerning

the intensity of their involvement with enterprise in the simpler, home manufacturing areas of sewing, producing grass mats and thatching grass indicating that while they had recently engaged in these activities, and often did, they were not currently producing anything. The fluctuations in enterprise activity seem to reflect both the budgetary needs of the household and the competing demand for manpower from agriculture rather than the prospects of the market. The month reviewed by this survey, in particular, is an important one for preparing the harvest, which requires a significant commitment of time and effort from those members of the household who might otherwise engage in enterprise. In either case, the lack of continuity in entrepreneurial activity indicates that home enterprise is seen as a way of producing extra money when it is needed, not as a primary source of income.

In contrast to this view, however, there is evidence that some individuals had aggressively pursued enterprise opportunities and were extremely business orientated. Some of those in the more commercial end of home enterprise had demonstrated considerable and sustained initiative in organising their enterprise. One person owned a tea room, another sold bottled drinks and two people had overcome considerable obstacles of transport and logistics to purchase clothes in Durban and Johannesburg which were resold locally.

CHAPTER FOUR

HOUSEHOLD BUDGETS

(1) Expenditure

1.1 Methods

Expenditure here refers to money spent in the rural area either by permanent members of the household or by returning migrants. It also includes a few instances of money being spent away from home by a permanent resident in the household. It does not include money earned and spent away from home even if the goods are brought back. The money must physically pass through the rural home.

The best that can be achieved in a short term survey is a rough estimate of household expenditure. Two methods were used to estimate expenditure, the relative merits and demerits of which are discussed below.

Method A:

Each interviewee was asked when somebody in the family last went to a shop or store, what was spent on that occasion. To avoid confusion a distinction had to be made between a shop or store which is usually a general dealer, and a 'tea room' which is a small village shop with a limited range of basics and is sometimes little more than a kiosk. The questions were repeated for 'tea rooms'. Average expenditure per family was taken to be the product of the average frequency of shopping and the average amount spent on each occasion. Additional questions were inserted to account for other expenditure on behalf of the family by other people (e.g. neighbours), and to account for purchases made elsewhere, particularly informal buying and selling of produce within the community.

Method B:

Each interviewee was asked how much was spent on certain things in a given time period. For food, most consumables, transport etc. the period was 'in the last month'; for durables, building material and agricultural expenses is was 'last year' (i.e. in the past 12 months) and for taxes, levies and educational expenses it was one calendar year. Possible expenditure was itemized as much as possible in order to jog people's memories.

1.2 Results

Method A:

The frequency of visits to the stores was 0,266/household/day (± 0,090) calculated from the percentage of families which had shopped within the last day. Calculated from the whole spread of periods since the last visit to a shop, it was 0,275/household/day. It is not possible to give confidence limits for the latter. It is based on more complete data but possibly also less reliable data than the former since people know whether they shopped one or two days ago, but are less sure whether it was five or six days ago for example. However since such errors will affect the final figure very little, the second figure is preferred. In the case of visits to a 'tea room' the former method is preferred since 41 % replied that they never go but the remainder go frequently. Monthly expenditure was calculated by adding the average sums spent at stores and tea rooms by a family during a month's visits. The total monthly expenditure for a houssehold at shops was R95,80. To this must be added other purchases of 62 cents per household per month made up mainly of informal purchases of fresh produce. Thus the final estimate of monthly purchases by this method is R96,42 per household.

Method B:

The average monthly budget for a household is given in TABLE 7. The confidence limits were calculated after lumping replies into groups (from three to ten per group) since there were no simple normalizing transformations. Confidence limits are purely statistical - possible systematic errors are discussed in the text.

TABLE 7 Average monthly household expenditures

From the amounts which each family reported spending in a given time period, the average monthly budget was calculated.

	R/fam month	95 % limits	% of total
Consumables	55,30	7,15	64,9
Durables (incl. building material)	10,77	2,86	12,6
Education	6,66	1,73	7,8
Services (esp. transport & medical)	4,80	0,89	5,6
Agricultural expenses	3,06	0,82	3,6
Clothes, blankets, shoes etc.	2,64	1,01	3,1
Taxes and levies	1,61	0,17	1,4
Church dues	0,80		
Total	85,64		

TABLE 8 Distribution of household expenditure on consumables (%)

There are some differences in the breakdown of expenditure on consumables estimated by method A and by method B . See text for details.

	% of budget by method A	% of budget by method B	% of households purchasing items in previous month
Fruit, vegetables	7,4	4,6	67
Meat, fish	3,6	5,6	58
Eggs	0,1	0,7	23
Milk (fresh)	0,7	1,2	17
Total fresh foods	11,8	12,2	
Maize meal	54,0	36,6	95
Samp, beans, maize rice	1,7	2,4	41
Tea, coffee	2,2	2,3	73
Soft drinks, sweets	0,4	0,8	23
Alcoholic drinks, yeast	0,6	1,3	14
Salt, fat, flour	4,2	3,4	88
Sugar	16,9	8,1	89
Powdered, condensed milk	1,3	1,1	39
Canned food	0,3	2,2	40
Bread	1,9	9,9	94
Jam, margarine	0,1	0,9	33
Other processed foods	0,1	0,0	0
Total processed foods	83,7	69,0	
Paraffin, candles	1,7	4,7	96
Batteries	0,1	2,0	57
Wood, coal	0,2	3,6	23
Matches	0,1	0,7	93
Vaseline, creams	0,5	3,1	85
Soap, washing powder	1,8	4,2	87
Other	0,5	0,9	54
Total non-food consumables	4,7	19,2	

TABLE 9 Distribution of household expenditure on durables (%)

Building materials	47,8
Furniture	26,9
Vehicles	11,7
Radios	10,7
Others	2,8

The finer details of expenditure on consumables and durables show that maize meal is by far the most important item amongst the consumables while building materials account for nearly half of the durables.

1.3 Discussion

The essential difference between the two methods is that the first one considers information about recent shopping only and consequently should contain fewer errors in reporting at the cost of wider statistical confidence limits relative to the second. This will apply particularly to items which are bought infrequently in large quantities such as 20 litre cans of paraffin. The monthly expenditure of R96,42 estimated by Method A includes consumables, durables and clothes etc.. However only the data on consumables have statistical realiability in Method A. The two estimates of expenditure on consumables alone are R94,20 and R55,30 per month respectively. The discrepancy is just a little too large to accept as being purely statistical.

We suggest ways in which systematic errors may have crept in.

Method A

The validity of this method depends on some conditions. Firstly, there must be no relationship between the length of time since the last visit and the amount spent. If, for example, some families shopped frequently, spending small amounts while others spent larger sums less frequently the method would tend to overestimate expenditure per family. Regression analysis surprisingly showed a very slight negative correlation between time elapsed and amount spent but it was not statistically significant and probably spurious.

Secondly, equal numbers of questionnaires should have been completed on each of the days of the week, i.e. an average of 15,9 per day. In fact the distribution was as follows:

Mondays	17
Tuesdays	18
Wednesdays	28
Thursdays	19

We have based our estimates of expenditure (TABLE 7) on Method B since there is a real possibility that Method A overestimated it. The former also fits our data on incomes in the previous chapter. Were we to accept the higher estimate from Method A there would be a serious imbalance in the household cash flow with more money leaving than coming in. Although we must acknowledge the possibility that the higher estimate of expenditure is the closer of the two (and that income is underestimated), we believe that the probability is that the values we present for income and expenditure (TABLES 5 & 7) are substantially correct.

(2) Incomes

Information on incomes from various sources has been presented in some detail in CHAPTER THREE, and will not be repeated here. Suffice it to say that in the first three sections of the chapter and TABLES 5 and 6 average household income of R114,43 per month has been analysed into eight components - which are also classified variously into in cash/in kind, external/internal and agricultural/non-agricultural categories. It is the in cash/in kind distinction which is relevant in this chapter since the expenditures which are financed through the household budget are paid for in cash.

(3) Balancing the budget

If all cash expenditures and receipts are accounted for, they must balance except for certain balancing items 'on capital account' - representing saving and dissaving, borrowing and lending. Somewhat to our surprise the 'average household' in our survey had a yearly set of income and capital accounts which almost balance. Classifying items as 'inflow' or 'outflow' and adding income account and capital account items together on either side, produces a total annual cash outflow of R1 097,40 and a cash inflow of R1 079,42 - so that there is a discrepancy (or 'experimental error') of only R17,48.

The 'balancing items' have not thus far been discussed. In the data there are references to savings and both positive saving and dissaving (or withdrawals) are recorded. There are also references to informal credit and both loans and borrowings are recorded. Taking our sample as a whole, households withdrew more funds from their savings than they deposited, and borrowed more in informal credit networks than they loaned to others. As illustrated in the accompanying flowchart, (FIGURE 6) the average household saved R27,12 during the year and withdrew R86,76 from savings; it also borrowed R63,72 informally and lent R42,60. On capital account therefore, the sample's position deteriorated on average by R80,76 (= R150,48 - R69,72) - i.e. net debts were incurred or financial assets reduced in an effort to finance expenditures.

It may be that this deterioration on financial capital account is to be

Fridays	14
Saturdays	15
Sundays	0

Not enough is known about shopping patterns to predict what sort of bias this may have introduced.

Thirdly, seasonal factors could affect the results. Purchases of maize meal would almost certainly drop after the maize harvest. Buying patterns are probably influenced by holiday periods when migrant workers return. Easter weekend in fact occurred in the course of the survey. These factors would of course affect the results determined by Method B as well. However the Easter buying spree would influence Method A relatively more than B because in the former method there is an immediate response while in Method B, the effect would be partly hidden in a monthly total.

Method B:

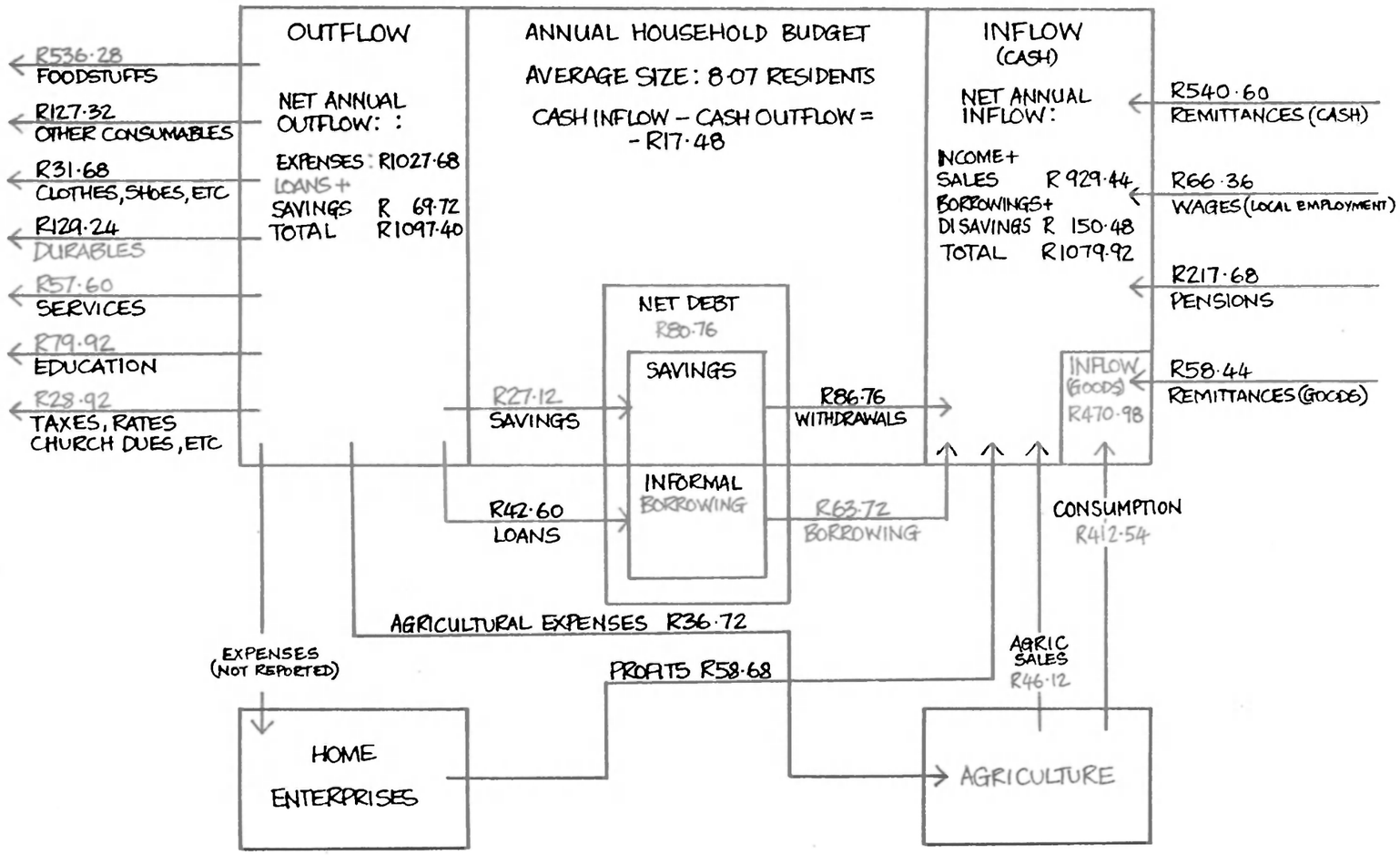
Because it was necessary to itemise things in Method B, there will be omissions although there was a class for 'others'. Examples of omissions include sweets, yeast, tobacco but these are minor items. Perhaps a more serious error lies in the power of suggestion, particularly with non-food and luxury (relatively speaking) items. We suspect there was a strong tendency to overestimate these.

Nearly all people said they bought one large bag of maize meal and a large bag of sugar last month. If however this only lasts a family for, say, 3,5 weeks on average, Method B will tend to underestimate expenditure on maize meal. Conversely, the estimate of sugar would be too high if a bag lasts for more than one month. One minor, but obvious example was expenditure on batteries which was overestimated by Method B because the purchase was often claimed although in most instances it had probably happened more than a month ago.

Sixty-three percent claimed to have bought bread every day in the last month but Method A shows that this is definitely not true so expenditure on bread was seriously overestimated. This may apply to other things which are purchased frequently. These systematic errors are probably all present to some degree although some of them run counter to the actual discrepancy between the two estimates of spending.

There were probably systematic errors in data on durables. In the course of conducting the interviews it seemed to us that major items of expenditure were overestimated either because some people mentioned things purchased longer ago than one year or because they included items brought home by migrant workers and therefore outside our definition of expenditure. Small items were probably underestimated because people had forgotten about them.

FIG 6 : THE HOUSEHOLD



accounted for by mis-reporting. It may also be however that it reflects the facts, since most agricultural producers referred to 'last year' as a 'below average' one and there may have been some pressure on budgets for that reason.

CHAPTER FIVE

SIZE DISTRIBUTION OF HOUSEHOLD INCOMES AND EXPENDITURE

(1) Data

In most preceding discussions of incomes and expenditure, a mean or averaged situation across housholds has been presented. Of course, mean household income-and-expenditure figures are summaries of the full distribution of incomes and expenditures, and as such discard much potentially interesting information. In fact the detail of the lower-end of both distributions is of considerable interest - in particular for the information it will provide about relative and absolute poverty in the communities studied.

It will not be possible to discuss these questions as definitively as we should like, because the questionnaire was not focussed on questions of income distribution and poverty. Some things can be said, and it may be of value to record results which, though not amounting to much in themselves may come to have more significance as comparative material is collected.

It is possible to construct size distributions of household income and household income per capita for 65 households (for the remaining 46, data on agricultural incomes are not well-established). Incomes are subject to various qualifications, but there are grounds for regarding them as giving a reasonable picture of income resources available in cash and in kind to households in an average month around March/April 1981.

(2) Distribution of household income

An indication of the unequal distribution of incomes can be obtained from Table 10. However, there is a major reservation that needs to be made about this table. It represents the distribution across households of the sum of remittances for one month and averaged other incomes. We do not know how similar would be the distribution obtained by considering a year's remittances and averaging over 12 months. It is possible that some (or much) of the variance would disappear. Some households which received low remittances in our sample month, may well have received higher payments in other months, and vice versa for high remittance receivers in our month. Whatever the precise position may be (and of course there are structural features creating inequality - the number of migrants per household their wages etc.) we have not established it with certainty.

As already reported the mean of this distribution is close to R114 per month. The fact that the median level is R87,50 per month reflects the concentration of households at the lower levels of income. Close to 30 % of the sample have household incomes of less than R50 per month, and close to 60 % below R100 per month.

TABLE 10 Estimate of the size distribution of monthly household incomes from all sources, 1980/1981 - based on one month's data on remittances

(truncated sample : 65 households)

Income per month (R)	No. of households	Cumulative distribution %
0 - 24	7	10,8
25 - 49	12	29,2
50 - 74	9	43,1
75 - 99	10	58,5
100 - 124	6	67,7
125 - 149	6	76,9
150 - 174	5	84,6
175 - 199	2	87,7
200 - 224	4	93,9
225 - 249	1	95,4
250 -	3	100,0

Some sense of what these figures mean may be derived from comparing them with figures for the distribution of household cash incomes in a peri-urban area outside Pietermaritzburg in 1981 (incomes in kind are omitted). The mean was just over R200 per month, the median R180 (Bromberger, 1982)compared to R114 and R87,50, respectively. At the bottom end of the scale 12 % of the Pietermaritzburg-area sample had household cash incomes below R50 per month (as compared with 30 %), and slightly less than 22 % had incomes below R100 per month (as compared with 60 %).

It is of interest to note that households at the lower reaches of the

income distribution are more heavily dependent on agricultural incomes than others. It appears as though agricultural assets and activities to some extent off-set the low levels of remittance and transfer incomes receive by these households.

There are several ways in which this evidence might be presented, but we have chosen to show how agricultural incomes vary with non-agricultural cash incomes - and have done so with grouped data and group average incomes.

TABLE 11 Variation of household agricultural incomes (sales and subsistence) with levels of household non-agricultural incomes

Non-agricultural income range (R/pa)	No. of house-holds	Mean non-agricultural income (R/pa)	Mean agri-cultural income (R/pa)	Mean agricultural income as % total income
0 - 499	27	259	351	57,5
500 - 999	19	789	291	26,9
1 000 - 1 499	11	1 282	474	27,0
1 500 -	8	2 700	886	24,7

Whereas throughout the non-agricultural income range above R500 per annum, mean agricultural income (in cash and in kind; or, from sales or as subsistence) is fairly steady at about 25 % of the mean household total, below R500 per annum the average household derives more than half of its income from agricultural production.

At this stage of the discussion it would be useful to have a set of 'poverty level' measures for various household-sizes, but these are not available and we have not attempted to construct them.

(3) Distribution of household income per capita

It might be that most low income households are of below-average size - so that the poverty implications of the household income distribution are somewhat less severe than at first appears. For this reason, and because it may be a little easier to imagine what per capita income figures mean concretely, it may be useful to present the distribution of household

incomes per capita. In fact, it will turn out to be the case that while there is some concentration of small households at the low income levels, the effect is not marked and the poverty implications of section (2) not much reduced.

As noted elsewhere the mean of the distribution is just over R14 per person per month. The median is lower at just over R12 - which implies a median household per capita income of about 40 cents per person per day. Only six households (9,28 %) have a per capita household income of at least one rand per person per day.

TABLE 12 Size distribution of monthly (averaged) household incomes per capita from all sources, 1980/81

(truncated sample : 65 households)

Household income per capita per month (R)	No. of households	Cumulative distribution %
0 - 3,99	10	15,4
4 - 7,99	11	32,3
8 - 11,99	10	47,7
12 - 15,99	14	69,2
16 - 19,99	7	80,0
20 - 23,99	3	84,6
24 - 27,99	3	89,2
28 - 31,99	1	90,8
32 - 35,99	1	92,3
36 - 39,99	1	93,9
40 -	4	100,0

Thirty per cent of households had an income of less than R50 per month, which translates into R6,20 per month per person. About 26 % (17/65) of households had monthly per person incomes below this level. As mentioned above, the concentration of households with low per capita incomes is not much different from the concentration of households with low per household incomes.

(4) Distribution of household cash expenditures

It is possible that there is greater variability in cash incomes on a month-to-month basis than in cash expenditures (with credit and dissaving making possible a 'smoothing' of expenditures over time). If this is so it seems worthwhile to examine the distribution of reported household cash expenditures and to compare it with that of household incomes. A further advantage is that a larger sample (the full 111 households) is available.

Clearly cash expenditures ought in the general case to be lower than income from all sources because there is a not insubstantial subsistence component of income. This makes it of considerable interest that in the expenditure distribution below 21,6 % of households reported cash expenditures of less than R50 'last month', whereas income estimates put the below -R50 per month class at 29,2 % - i.e. there are less very poor households right at the bottom of the distribution. At the R75-level the comparison is reversed, and as one would expect 43,1 % of the income-sample are below this level, but 53,2 % of the expenditure sample. It is unfortunately not possible to take this issue further with existing data.

TABLE 13 Size distribution of monthly (averaged) household cash expenditures, 1980/81

(full sample : 111 households)

Monthly household expenditure (R)	No. of households	Cumulative distribution %
0 - 24	8	7,2
25 - 49	16	21,6
50 - 74	35	53,2
75 - 99	20	71,2
100 - 124	16	85,6
125 - 149	4	89,2
150 - 174	5	93,7
175 - 199	4	97,3
200 - 224	0	97,3
225 - 249	1	98,2
250 -	2	100,0

CHAPTER SIX

CONSIDERATIONS FOR A COMMUNITY DEVELOPMENT PROJECT

(1) Points raised

The following points are not major ones but have direct relevance to the planning of a community project such as the Thwasana Co-operative Farm Project, and may also be of broad general interest. Since the only unifying theme is that the points raised impinge on some specific aspect of the potential activities of the TCFP, this section is a collection of miscellaneous items.

(2) Demand for fresh produce

The main limiting factor on the amount of fresh vegetables sold seems to be supply. Gardeners who produce surpluses have no trouble selling them.

The amount reportedly spent on fresh fruit and vegetables in a month is R2,56 per family but estimates of expenditure based on the most recent occasion of shopping indicate this may be higher. The total market for fresh fruit and vegetables amongst the 548 KwaZulu homesteads within 10 km of TCFP is about R17 000 per annum at the moment.

At the time of the survey, the amount spent was made up as follows:

Potatoes	68,6 %
Tomatoes	13,6 %
Cabbages	8,4 %
Onions	5,5 %
Fruit	1,1 %
Pumpkins	0,4 %
Brinjal	0,3 %
Beans	0,3 %
Spinach	0,2 %
Unspecified	1,4 %

This possibly is indicative more of the supply at the time than of demand. However, in a preliminary pilot questionnaire people were asked what vegetables and fruit they favoured: the four vegetables at the top of the list above were very popular as well as spinach and carrots.

If we suppose that the above is, in fact, representative of the yearly average, then expenditure on the main items can be compared with the amount of these which are produced and sold in the community (TABLE 14).

It is very apparent that there is much scope of TCFP to replace imports with local produce by producing potatoes on a large scale. Not too much

ought to be read into the figures for cabbage and tomatoes since we cannot be certain how typical the month of the survey was, how reliable are the data on sales, or what capacity there is for demand to swell to meet an increase in supply. The relatively short shelf life of tomatoes may be a disadvantage in rural marketing.

A large proportion of purchases of meat, milk and eggs are informal household to household transactions. The fact that more surplus milk production was given away than sold (TABLE 3) may be an indication that there is not a large local market for fresh milk. Eggs are infrequently purchased either informally of from shops. Five percent of families said that they bought meat on their last visit to a store, one claiming to have spent R20. There is scope for producing meat for a local market and improving the distribution of such a perishable commodity. However, in view of local overgrazing and of the very small turnover of animals in the area it may be better to encourage and assist local farmers to increase their sales of meat than for TCFP to produce for a local market.

TABLE 14 The amount of money spent by the 548 families in the study area is compared to the surplus production which is sold in the same community for the three vegetables purchased in the greatest quantity

	Sales R/yr	Purchases R/yr
Cabbages	2 850	1 430
Tomatoes	1 390	2 310
Potatoes	1 880	11 660

(3) Proximity of shops/stores

The local marketing of TCFP produce will require decisions on outlets: whether to try to work through the established shops or whether to establish outlets of their own. Fifty-two percent of respondents said that it was not far to the nearest store, 35 % said it was quite far and 13 % said it was very far. Half of the respondents said they lived within 3 km of a store.

The question as to what transport people used when they last went to the store was not answered in many (27 %) cases. Of the remainder 29 % replied bus, 66 % replied walk, and 5 % said they never go to the store.

TABLE 15 There are a number of basic tools in the comunity but most people agree that more are needed. The sample size was 111 families

Tool	Number of households possessing the tool	Number of tools owned	Number of respondents who say they need the tool
Hoe	83	179	13
Spade/shovel	56	85	34
Pick	17	18	40
Fork	9	10	15
Rake	15	17	40
Skoffel (weeding hoe)	17	18	3
Sickle	14	27	6
Wheelbarrow	13	14	4
Tractor	2	2	1
Yoke	12	35	3
Plough	29	31	5
Planter/planting plough	13	13	3
Wagon	2	2	0
Milling machine	1	1	0
Block mould	0	0	2
Saw/axe	6	12	6
Pincers	5	5	3
Grindstone	0	0	1
Chisel, hammer etc.	12	28	9

(4) Tools owned and needed

People were asked what tools they owned and what other tools they needed since a tool hire scheme had been suggested for TCFP. Eighty-two percent said that they share tools and 83 % said that they require more tools. The question was intended to refer specifically to agricultural tools but others were recorded when mentioned by respondents. The results are summarised in TABLE 15. Although there are probably ommission (tools owned but not recalled to mind at the time), there clearly is a need for more tools. One respondent said that a grindstone for sharpening axes would be useful. Such fixed tools could be installed by the TCFP for people to use on site.

(5) Milling facilities

Although only one household claimed to have a milling machine (TABLE 15), there are probably some privately owned hand driven milling machines.

Twenty-six percent of the households who produce maize said that they mill their own, 70 % said they get other people to mill it for them and 4 % said they do both.

(6) Shortages of wood and thatching grass

There are severe shortages of firewood and building poles and laths in that area of KwaZulu. This is the subject of a detailed study by Gandar and the findings will be published soon. The gathering of firewood requires approximately ten hours of work per family per week. Wood is frequently purchased from plantations on White-owned farms at Nhlazatshe. Some is carried by the headload. When a tractor or truck is used to carry a larger load, transport is 80 % of the total cost of the wood. If TCFP produces firewood and poles on some of the non-arable areas, consideration should be given to distribution points. Consideration should also be given to establishing a nursery to provide tree seedlings since some people expressed a wish to plant both fuel and fruit trees.

This survey enquired into the shortages of thatching grass. Forty-four percent said there was no problem of shortages of grass, 43 % said there was a minor problem and 12 % said there was a major problem. This traditionally free resource is becoming commercialised: 22 % buy most of their thatching grass, 30 % buy some but cut most of it for themselves while 48 % still gather all their own. Nearly all thatching grass is of one of two types: fine thatching grass or intunga (Hyparrhenia hirta and H. filipendula); giant thatching grass or uqanga (H. aucta and Cymbopogon validus). The shortage of fine thatching grass (which is used for traditional behive huts and grainstores, and for normal hut roofs when it is available) is more acute than that of giant thatching grass (which is only suitable for hut roofs). The latter grows frequently on grass banks between fields and is now the most commonly used thatching grass.

(7) Enterprise

The varying levels of commitment to the different forms of home enterprise discussed in CHAPTER THREE, Section 5.4 have direct implications for development possibilities in the area. Since home manufacturing is widely regarded as a part-time occupation to provide supplementary income, efforts to develop intensive small scale manufacturing requiring considerable man-hours would probably not be successful. Attempts to co-ordinate or regulate production, moreover, are not likely to be very successful. A more appropriate approach might be to develop opportunities for small-scale commercial and trade activities. Such opportunities would probably be pursued enthusiastically by some households in the survey area albeit on a part time or casual basis. In designing commercial, trade or marketing options, the aim must be to strengthen the overall economic base of the community. If possible, local demand should be fed by local production, and not contribute to the loss of capital through the funnels

of commercial centres.

(8) Education training and skills

The low levels of education and training that prevail in the area are a serious constraint on development. In order to improve the prospects for effective and sustainable development, TCFP should make efforts to introduce training and literacy programmes.

Until such time as training programmes become effective, the reserve of educated people that the Project would be able to draw on to help implement projects will be low. Those people in the area who do have some education are almost entirely women, and accordingly, projects which can effectively utilize this factor should be formulated.

As can be seen from TABLE 6 a substantial number of survey respondents (47) are skilled in some form of sewing or weaving. These people are an economic resource of the community and form a basis for potential economic activity. The formalization of this sector, including further training, improved marketing systems and cooperative purchasing of materials is an avenue of development which TCFP should explore. Four men listed building (which probably means traditional building) as a skill and the occasional person had some other trade skill. There are very limited opportunities for self-employed artisans with the lack of development, but the emergence of an artisan class would probably occur spontaneously if and when development takes place.

TABLE 16 Distribution of productive skills among survey area residents. Respondents were asked whether people living at home had acquired skills. From a sample of 111 households comprised of 70 resident men and 263 resident women, the following replies were received.

Skill	Number of men	Number of women
Making clothes/sewing	1	21
Weaving grassmats	0	12
Weaving (unspecified)	0	13
Knitting	0	1
Driving	2	0
Building	4	0
Carpentry	1	0
Bricklaying	1	0
Shoe repairing	1	0

CHAPTER SEVEN

RELIABILITY OF RESULTS

(1) Statistical errors

From a statistical viewpoint the main feature of the distributions of livestock, production, earning, expenditure etc. is the varying degree of skewness. Examples of this can be seen in FIGURE 4. We have not attempted to fit normalizing transformations to these quantities. In some cases there is no simple normalizing transformation because of a large percentage of zeros. Data on expenditure were normalized by grouping (CHAPTER FOUR) but this effectively reduced the sample size. Thus the values of standard errors which accompany some of the more important quantities in this document are no more than rough indications of variability and it would be misleading to base precise confidence limits on them. For major quantities like agricultural production or expenditure the sample size seems adequate but it must be accepted that when these are broken down into components, there is considerable statistical uncertainty. For example the subsample of 65 households in the agricultural section contained only 15 households which produced any vegetables other than cucurbits (TABLE 3) and the value of this production ranged from R1 to nearly R500 for individual households.

(2) Systematic errors

Systematic errors pose more of a problem than statistical errors in a survey of this nature. The former are often difficult to anticipate and impossible to quantify. There appeared to be five main sources of error.

2.1 Attitude of interviewee

On occasions it was possible to sense a degree of suspicion on the part of respondents. We have very little idea about the extent to which people falsified their replies out of suspicion. On occasions on which it was necessary to revisit a household to clear up some internal inconsistency within the questionnaire, it was not uncommon to get a substantially different picture of some important aspect such as family size and structure or remittances.

Suspicions were allayed to some extent by explaining that the reason for the survey was to assist in planning a community development project. However, they understandably found the connection between some of the questions and their own welfare obscure.

While knowledge that the survey was in the interest of community development helped to overcome suspicion, it also encouraged some people

to exaggerate their problems in the hope of getting help. This clearly operated in the first survey of agricultural production in which some respondents seemed to try to emphasise the hopelessness of agriculture in that situation.

To some extent this may have been balanced by a wish to please or impress the interviewer, causing others to inflate their reported production. The only solution was to select a subsample to revisit and to probe and discuss agricultural production in great detail. Expenditure, particularly on luxuries, may have been overestimated for the same reason (CHAPTER FOUR).

The desire to give what is perceived as the 'right' answer is likely to have distorted a number of sections of the survey. We trust that the distortions are not too serious however.

2.2 Perceptions of meaning

The problems of perception of meaning derive largely from translation. The most serious we encountered was in the concept of production or expenditure. The all-embracing nature of these concepts was not easily communicated so these eventually had to be itemized. It took much time to explain, for example, that an egg found in the yard and eaten, should be regarded as agricultural production. Other problem areas were the concepts of family and household, reliability of remittances, tools, to name just a few.

2.3 Quantification

Requests for quantified information gave rise to innumerable difficulties even in the most unexpected parts of the questionnaire. For example, the question as to how many children are in the household sometimes drew lengthy discussion and argument, counting and recounting, before an answer was ventured.

Questions about quantities, as opposed to numbers created most difficulty. Some things simply are not measured and the problems encountered in measuring milk production, for example, is discussed in CHAPTER TWO. Various containers were mentioned as measures of quantity: buckets, basins, tins, bags, etc.. There was a tendency to round off fractions upwards leading to small but systematic overestimates.

Information was sought on things of which there was no record such as expenditure. While most people could give the cost of items purchased to the very cent, past purchases were not recorded. The confusion was compounded when the factor of time was introduced as well. How much was spent in the last month is an example. We had anticipated difficulties in explaining whether 'last month' meant the previous 30 days or the last

calendar month. Experience showed that it was best just to leave it to the respondent to interpret it in the way he or she chose in order to make the question easier to answer.

Trials with preliminary drafts of the questionnaires showed that innumerate people had difficulty in conceptualizing averages. Questions such as how much do you spend on average in a month, or how much do you produce in a typical year were abandoned in the final draft of the questionnaire.

There were also situations which presented difficulties because they did not fit the form of data gathering. For example, one woman bought paraffin in 20 litre cans, used some herself and decanted the balance into bottles which were sold from her house at a profit. The initial expenditure somehow had to be divided between domestic expenditure and home enterprise.

2.4 Inexperienced enumerators

We were fortunate to have two very able enumerators one of whom already had limited experience conducting rural surveys and the other with experience in community work and thus in communication. However this type of survey was new to them and lessons needed to be learnt by experience.

On the one hand the enumerators must recognize from the reply whether the question has been understood, and if not, redirect the question. On the other hand the enumerators must be able to recognize unexpected, but valid, answers which must be accepted. Erring in one direction results in many inconsistent and meaningless replies while the other results in the enumerators' preconceived ideas of what the answer should be impinging on the survey. This dilemma faces even the most experienced interviewer.

Experience is also valuable in condensing the results of a discussion into the rigid format of the interview schedule, knowing what to do with important facts which do not fit the format exactly and introducing no bias in the process of recording. Despite the relative inexperience of the enumerators, we are confident that any bias which may be due to them is reasonably small.

2.5 The short duration of the survey

Any survey which depends on a single month as this one did for estimating the main portion of income and expenditure is apt to be biased. These are not constant throughout the year and this survey which began on 30 March 1981 and was completed on 24 April 1981 would have been influenced by two factors. Firstly, the Easter weekend, from 17 April 1981 to 20 April in that year, is a time when many migrant workers visit their homes. This would almost certainly have influenced income from remittances,

particularly remittances in kind, and probably expenditure. We did not attempt to compensate for this bias but there is evidence (CHAPTER THREE) that it is not very great. Secondly the survey was conducted at a time when some crops were being harvested, though the harvesting of maize had barely started. This may have influenced consumption patterns.

(3) Confidence limits

In conclusion, the results of a survey like this are subject to many possible biases each of which may be small but together they could lead to at least some large cumulative errors. We cannot presume to put confidence limits on our results, although we believe firmly that whatever errors there may be, are not sufficient to alter the overall picture of the socio economic conditions in the study area. The degree to which the money flows into, out of and within the community balance one another suggest that this overall picture is substantially accurate.

CHAPTER EIGHT

CONCLUSIONS AND CONJECTURES

(1) Cattle in agriculture

The most striking feature of the agricultural situation is the central role of cattle despite the low sales turnover. The importance of animals as a store of wealth is underlined by the fact that the value of the average cattle holding is roughly equivalent to the average household cash income over a period of 2,5 years. According to KwaZulu Department of Agriculture and Forestry statistics, the sales of cattle were 1 % for all KwaZulu in 1981 for all KwaZulu. Though higher than our sample, it is still very low. It has been suggested (Colvin, 1983) that cattle are sold to meet specific cash needs, which accords with the 'store of wealth concept'.

In terms of produce, cattle were again very significant with milk contributing more (in terms of cash equivalent) than all other agricultural production put together. It was significant that one household which claimed to get spectacularly higher maize yields than the average, applied manure to their fields. This practice of manuring fields was not common except in as much as it was incidental to the practice of feeding animals on field stubble. An interesting feature of reported agricultural expenditure was that most of it was for ploughing. The shortage of draught power was the most frequently voiced reason for fields being uncultivated. A study in certain tribal areas of Zimbabwe showed that ploughing made easily the greatest single contribution (42 %) to the gross value of benefits from cattle (Danckwerts, 1974). In our study we did not quantify this value, but clearly drought power from cattle is very important, yet inadequate.

A viable herd providing only subsistence requirements and breeding for replacement, not sales and slaughter, must contain at least 16 to 18 animals. The shortage of animal draught power is understandable since less than 20 % of households have that number. Regular sales are only possible when herds exceed 30 animals (Behnke, 1982). Only 3 % of our sample was in this category. With animals spread in many small units, the whole herd becomes subeconomic, and any form of animal husbandry or rangeland management is very difficult to implement.

Three features of the pastoral side of agriculture emerge. Firstly cattle are the main agricultural asset. Secondly, the full potential benefit of

cattle to the whole community is not realized. Thirdly, in seeming contradiction to the first point, cattle are also the main agricultural liability. The optimal carrying capacity of the veld has been far exceeded. Overgrazing is arguably the greatest direct threat to environmental stability of tribal areas.

No rural development plan can ignore the inherent economic significance of cattle to rural households. The internal socio-economic factors are constraints on a more rational and economic use of cattle (from a holistic point of view) and severely limit the responses which subsistence herders can make to economic forces and incentives.

(2) The subsistence component of household incomes

The average household in this survey (resident size = 8,07 persons) received a cash income of R77 during the month of March/April 1981. This excludes income received by absent household members which was not sent home to the Mahlabatini-based houshold.

If account is taken of agricultural production in the year preceding the survey month and the estimated value of production is averaged over this period, average household income rises to the neighbourhood of R114 per month (including remittances in kind worth nearly R5).

There is some interest in this finding since there are no generally-accepted quantitative estimates of the relative size of 'subsistence income' in rural areas (or of the distribution of the relative size of 'subsistence income' across rural areas, if there is regional variation). However, there are widespread assumptions of a loose kind, often contradictory, about the matter: on the one hand African rural areas are seen as little more than deserts, on the other it is optimistically assumed that they still have the capacity to absorb increased populations on a subsistence basis at least in the short run. The results of this survey show that in Mahlabatini the subsistence component of total income actually available to resident households is not negligible, but that it is dominated in importance by remittances and pensions: it constitutes roughly 30 % on average of income from all sources. It is clear that a typical household can not subsist on a mere 30 % of its income, and that people's survival has thus become dependent on financial and resource transfers from the money-wage-economy.

A qualification to this average picture emerges however from an attempt to study the variation of income (and its components) across households. It appears that among households with relatively low cash-income the

dependence on subsistence (and local-exchange) agriculture is greater than it is for the average household or for households with relatively high: cash-incomes. Although the actual agricultural production levels of these low cash-income households are below average, consumption of own production and small-scale sales form a higher percentage of their total incomes than they do for households in general: for households with non-agricultural incomes in the range below R500 per annum mean income from agriculture as a percentage of total annual income was 57,5 % (Table 11). Even such households cannot be said, on the information available, to live off agriculture.

Two relatively 'invisible' income sources which might be thought to boost household incomes substantially above the level of available wage-remittances and pensions are local employment and 'home enterprise'. In a genuinely rural area such as Mahlabatini it appears that they generate relatively small income contributions. In combination their contribution constitutes 13 % of cash income and 9 % of total income. The significance of these sources may be greater than mere figures suggest in that these have some 'compensatory' flexibility i.e. they may expand their contributions when other sources decline. The quantitative impact of this compensation as revealed in our survey is limited. Some of the local wage-income derived from employment created by 'drought relief'; some individuals' involvement in home enterprise appears to vary with immediate need (and hence, to some extent, inversely with the level of income from other sources).

(3) Comparisons with other rural areas, urban areas and the 'poverty line'

We are fortunate in having some comparative estimates of Black household incomes in rural areas in the same year in the Ciskei. There are also estimates of rural Transkei incomes some 1,5 - 2 years previously.

Researchers from the Institute of Social and Economic Research at Rhodes University have reported estimates of the cash component of household incomes in two localities in the Ciskei during 1981 (Bekker, de Wet & Manona, 1982; Whisson et al., 1982) viz. the Amatola basin and Cata. They do not appear to have estimated the value of agricultural production. In both cases there is an interesting prima facie similarity in cash income levels: R74,50 from the Amatola basin and R64,34 for Cata, compared to our figure of R77 for Mahlabatini. The introduction of household size into the comparison reduces the similarity however, though it does not destroy it. The household in residence had 4,7 members in Amatola, 6,0 in Cata and 8,07 in Mahlabatini - and the corresponding monthly household cash incomes per person are R15,85, R10,72 and R9,60.

It is tantalizing that we cannot compare total household incomes - in particular to test whether the spread between per person levels is reduced.

However, the report on Ciskeian incomes and expenditure in 1981 by the Bureau of Market Research (BMR) at UNISA yields figures on total household incomes in rural areas which are well above those reported here (Bureau of Market Research, 1982). Their sample of rural households was drawn from five localities in the Ciskei (which according to the 1980 Census contained 84 % of the rural Ciskeian population). These households had an average income from all sources of R1 924,41 per annum, or R160,37 per month - of which R22,93 was income from 'farming' (apparently both own-consumption and cash income from sales). It appears that using the definitions of the BMR the Ciskei is really not rural in the sense that Mahlabatini (or the Amatola basin, perhaps) is. 48,1 % of household income is constituted by 'salaries and wages': individuals who work away but return to their homes more frequently then once a fortnight are counted as members of their households and presumably their full wages/salaries are credited to the household. In this way much of the Ciskei has some characteristics of semi-urban areas and the average household incomes reported are to be understood in this light. In addition agricultural cash income exceeds income in kind, in stark contrast to Mahlabatini where cash incomes from agriculture are negligible for most households. This may indicate that the Ciskeian community is more market and money orientated. The BMR have also included R141,26 per annum for imputed rent' of own housing. While there is a consistent case to be made for making some such allowance we did not do so and the removal of this item (contributing close to R12 per month) diminishes that gap between the two figures somewhat.

We also have figures for rural household incomes in the Transkei (as determined in a BMR survey in September 1979 (Loubser (1981)). Average Black household incomes in rural areas were then reported as R1 151,93 per annum or almost exactly R96 per month. It was established that there was considerable variation between districts - ranging from R145,50 per month to R53,25 per month. Allowing for an escalation in values of 20 - 25 % over the year and a half to March/April 1981 would yield an average household figure of R115 - R120 per month. This figure is of course very close to the Mahlabatini level. The contribution from agriculture is put at 21 % or R19,36 per month. However, as with the Ciskei - though to a lesser degree - wages and salaries earned locally seem to contribute relatively more to household income than in Mahlabatini (at just over 30 %), raising the possibility that again 'commuter incomes' are being included.

It would be useful progress if a set of definitions and measurement conventions could be agreed for rural income surveys so that comparability could be achieved.

A comparison of rural household incomes with urban will shed light on a number of issues, including the pressures behind the urbanisation process in South Africa. In the second half of 1980 the BMR surveyed incomes of Black 'multiple households' in Durban. On their definition of 'household' average size was 5,89 persons - of whom 1,85 were income recipients. This average household received an annual income of R3 903,40, or R325,28 monthly (Loubser, 1982). This was 2,84 times the rural monthly household income reported in Mahlabatini 6 - 9 months later. Correction for the small time difference would increase the ratio differential to slightly above 3.

Of course the differential is larger if we consider levels of household income per person, since our rural households are larger than those reported for Durban townships. The unadjusted figures yield a ratio of 3,89; adjustment to urban incomes for inflation between 1980 and 1981 produces a ratio of 4,27. Such income ratios are presumably sufficient to explain the movement to urban areas, or into proximity to urban areas that is such a feature of Natal/KwaZulu. However, they are not as high as sometimes reported.

If we were to compare the per person incomes of rural households and single households in urban areas, the ratio would be much higher. Even after deduction of his remittance to rural areas the migrant's income in town would be 10 (and more) times that of persons in rural households. And this points to an issue not often discussed viz. that the income-level of rural households is dramatically affected by the wage-remittance behaviour of the absent members of their housholds. Rural incomes are partly determined by income-distributional decisions made in town by absent workers. What determines the amount they remit ? How does it change over time ?

While saying what we have it is important to note that urban workers do not simply remit 'as they please'. There are pressures on, and requests to, them from the rurally resident households. Some of our informants said that their migrants could be relied on in the sense that they would send money when it was needed at home (in addition to more normal remittances). This is a perspective which we conjecture it may be worth investigating further. Clearly it does not apply to all households: there are those without migrants (or urban wage-earners, more generally)

and there are those which have been fairly unambiguously deserted by their wage-earners. As anthropologists have pointed out (Murray, 1981; Spiegel 1980) these households are poorest and most vulnerable. Even those households to which it does apply are of course severely restricted in the degree to which they can 'determine their own incomes'. Our point is that it would be useful to have some idea of what the degree is.

At least one attempt has been made to define a 'poverty measure' for Black households in rural areas (Potgieter, 1982). Without necessarily endorsing the concept developed or the details of the measure proposed we think it is interesting to apply it to the households in our Mahlabatini sample. Potgieter works with two measures, a Household Subsistence Level (HSL) and a Household Effective Level (HEL). The HSL is an 'estimate of the theoretical income needed by an individual household if it is to maintain a defined minimum level of health and decency in the short term'. It is concerned with 'the short-term satisfaction of basic physiological need' and assumes rational expenditure in items satisfaying such needs. It makes no provision for 'such essential requirements as medical expenses, education, savings, hire-purchase, holidays, reading material, entertainment, recreation, insurance, purchase and replacement of houshold equipment, and incidental transport'. The HEL of income is 'that which, after one third of it has been allocated to other items, is equal to the cost of the HSL requirements for that household'. Thus HEL = 1,5 HSL.

Potgieter attempted to measure these levels in June 1982 for Black households in a number of areas, including Nongoma in KwaZulu (which is about 50 km from Mahlabatini). His estimate for a household of six (including an absent mine worker) was R142,08 per month. Removing a small subsistence allowance for the mine worker and assuming 15 % cost inflation in the 1981-82 year produces an HSL figure of R115 per month for 1981 ! However, Potgieter's representative household had five resident members whereas the average household in the Mahlabatini sample had eight. Making a rough proportional adjustment raises the monthly HSL to R184. Clearly our average monthly household income at R114 is well below this figure- and it is only 41 % of the Household Effective Level of R276 per month corresponding to this HSL. An adequate response to these tentative findings would involve a very lengthy discussion. All we shall say here is that the average household income level in rural Mahlabatini in 1981 was well below a fairly widely-used poverty measure, and that more than half the households in our sample had incomes below that average. Although our figures need to be used with caution because the cash income findings relate only to one month, it seems unlikely that fuller coverage would alter the picture drastically enough to remove the clear implication of considerable poverty.

REFERENCES

Acocks, J.P.H. (1975) Veld types of South Africa. Mem Bot Surv S Afr. 28 : 1-192.

Behnke, R. (1982) Cattle accumulation and the commercialization of the traditional livestock industry in Botswana. Rural Sociology Unit, Ministry of Agriculture, Gaberone, Botswana.

Bekker, S.B. & De Wet, C.J. (1982) Some human and structural constraints on rural development : the Amatola basin : a Ciskeian case study. Institute of Social and Economic Research, Development Studies Working Paper No. 5. Rhodes University, Grahamstown.

Bekker, S.B., De Wet, C.J. & Manona, C.W. (1982) The farming activities in three Ciskei rural areas. Institute of Social and Economic Research, Development Studies Working Paper No. 4. Rhodes University, Grahamstown.

Bureau of Market Research (1982) Income and expenditure patterns of households in Ciskei, 1981. Bureau of Market Research, Research Report No. 95 UNISA, Pretoria.

Bromberger, N. (1982) Some socio-economic aspects of Vulindlela. In : Bromberger, N. & Lea, J.D. (eds.) Rural Studies in KwaZulu. University of Natal, Pietermaritzburg.

Colvin, P.M. (1983) Welfare economics and African pastolarism. Institute of Natural Resources, Monograph No. 3, University of Natal, Pietermaritzburg

Danckwerts, J.P. (1974) A socio-economic study of veld management in the tribal areas of Victoria - Province. Department of Agriculture Report, University of Rhodesia, Harare, Zimbabwe.

Erskine, J.M. (1982) Agriculture in Natal/KwaZulu : development potential. Institute of Natural Resources, Monograph No. 1, University of Natal, Pietermaritzburg.

Gandar, M.V. (1982a) A survey of labourers on farms near Nhlazatshe, Vryheid District, Natal. Unpubl. Report of Institute of Natural Resources, University of Natal. pp. 16 typescipt.

Gandar, M.V. (1982b) Livestock and drought in KwaZulu. Institute of Natural Resources, Working Document No. 1, University of Natal, Pietermaritzburg.

Gandar, M.V. (in prep.) Utilization of trees and wood in Mahlabatini District KwaZulu. Institute of Natural Resources Monograph, University of Natal, Pietermaritzburg.

Loubser, M. (1981) Income and expenditure patterns of Black housholds in Transkei, 1979. Bureau of Market Research, Research Report No. 90. UNISA, Pretoria.

Loubser, M. (1982) Income and expenditure patterns of urban Black multiple households in Durban, 1980. Bureau of Market Research, Research Report No. 94. UNISA, Pretoria.

Meissner, H.H. (1982) Substitution values of various classes of farm and game animals in terms of a biologically defined large stock unit. Department of Agriculture. Document D. 4/1982, Pretoria.

Murray, C. (1981) Families Divided : the impact of migrant labour in Lesotho. Ravan Press, Johannesburg.

Potgieter, J.F. (1982) The cost of basic needs of the migrant worker and his family in the national states of Bophuthatswana, KwaZulu, Transkei and Ciskei as calculated by means of the houshold subsistence level survey technique. Institute of Planning Research, Research Report No. 24, University of Port Elizabeth, Port Elizabeth.

Spiegel A.D. (1980) Rural differentiation and the diffusion of migrant labour remittances in Lesotho. In : Mayer, P (ed.) Black Villagers in an Industrial Society. Oxford University Press, Cape Town.

Thorrington-Smith, Rosenberg & McCrystal (1978) Towards a plan for KwaZulu - a preliminary development plan. KwaZulu Government, Ulundi.

Whisson, M.G., De Wet, C.J., Manona, C.W. McAllister, P.A. & Palmer, R.C.G. (1982) Migrancy and development : prelude and variations on a theme. Institute of Social and Economic Research, Development Studies Working Paper No. 11, Rhodes University, Grahamstown.